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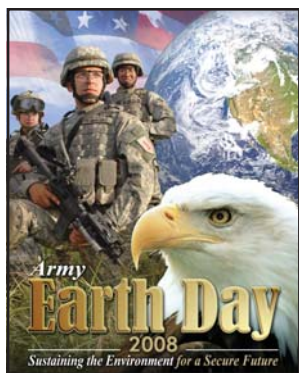
Earth Day

2008

Sustaining the Environment for a Secure Future

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Cover art courtesy of Army Environmental Command

Sustainability: Earth Day and every day

By Lt. Gen. Robert L. Van Antwerp
Chief of Engineers

During the last decade, the Army and the U.S. Army Corps of Engineers have been embracing a new ethic — sustainability.

What we do today can't negatively impact the future. We can't let today use up tomorrow. We have to step back and think about our legacy and how to ensure quality resources are available both for today and tomorrow.

On April 22, we will once again celebrate Earth Day. I hope each of you will take a few minutes to think about how you can advance the good things the Corps does for the environment.

You could argue that we are the nation's largest environmental agency. Taking care of and enhancing the environment is one of our major missions, a part of everything we do.

The same can be said for the sustainability ethic. The Army's Earth Day theme is "Sustaining the Environment for a Secure Future."

The Earth Day theme recognizes that sustainability is a national security imperative, a strategic framework, a combat multiplier and a driver for innovation. It is not another "program of the month" only to be talked about during April along with Earth Day, nor is it an "environmental thing."

It is clear that sustainability and security are inextricably

connected. Protecting our environment is more than a nice thing to do — it's about ensuring that our Soldiers today have the capabilities needed to conduct their mission tomorrow.

The Corps has an important role to play in sustainability. Our mission itself is about sustaining our water resources, sustaining our communities, sustaining our nation's economic resources and sustaining our national security.

The Corps has been working toward sustainability for a long time. We were an active part of the Army team that helped create the *Army Strategy for the Environment: Sustain the Mission, Secure the Future* and its triple bottom line of sustainability: mission, environment and community.

Our Environmental Operating Principles, with their focus on sustainability, predate the Army strategy, before sustainability came into vogue. The first of the seven principles, unveiled in March 2002, sets the foundation for those that follow: "Strive to achieve environmental sustainability. An environment maintained in a healthy, diverse and sustainable condition is necessary to support life."

You'll see sustainability in our refreshed USACE Campaign. Goal #3 is to "deliver innovative, resilient, sustainable assets to the Army and the nation." USACE continues to



Lt. Gen. Robert L. Van Antwerp

support the Army's triple bottom line of Mission, Community and the Environment.

One way we are advancing sustainability, throughout the Corps and beyond, is through the establishment of the Center for the Advancement of Sustainability Initiatives (CASI) at U.S. Army Engineer Research and Development Center. CASI draws on the expertise across our labs and centers — as well as the best in academia — to provide the military and other agencies with practical, "how to" solutions and sustainable best practices that advance the goals of the *Army Strategy for the Environment*.

We need to continue seeking out opportunities to incorporate sustainability in everything we do and share our best practices throughout the Corps and the Army. We must continue to move forward spreading our sustainability ethos as we move from "good to great."



US Army Corps
of Engineers®

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Theriot leaves Corps poised for environmental success

By Candice Walters
Headquarters, USACE

It's amazing just how quickly 12 months can fly by, especially when you're working in the environmental arena.

For Dr. Edwin Theriot, director of the U.S. Army Corps of Engineers Environmental Community of Practice, the year wasn't nearly long enough to accomplish the goals he had set out for himself and the USACE environmental programs. But, as he prepares to retire April 4, he said he believes that not only were positive changes made in the Corps' environmental programs, but the groundwork has been laid for even more.

"It was both challenging and rewarding," Theriot said of his tenure, which also included leading the Southwestern Division Regional Integration Team and the Department of Defense Team. "We've been looking to focus our execution of the environmental programs to better support our customers. At Headquarters, we're realigning ourselves to take advantage of the assets and resources found within the Environmental Community of Practice to focus on national program initiatives to strengthen the Corps' environmental programs."

During the year, Theriot oversaw the implementation of the Formerly Used Defense Sites Transformation, an effort to align the program on a regional basis, and the hiring of a chief for the Military Munitions Support Services program that interfaces with USACE customers to work

across the entire Corps to focus on military munitions.

Theriot also served as leader of the ecosystem restoration mission area. "I had a great opportunity to assemble a team from across the Corps working in the mission area, to gain insight into the issues and obstacles that hinder their ability to execute the mission. I have provided

recommendations to the Chief of Engineers and the Director of Civil Works on how to better align the Corps' resources to better execute this critical mission," he said. "We must work with our partners and

OMB (Office of Management and Budget) to change our approach and practices to achieve sustainable solutions."

When Theriot looks ahead, he said he believes "the biggest challenges focus on our ability to take significant steps forward in integrating our Civil Works and Military Programs environmental mission areas. Our environmental programs are broad in scope across a number of mission areas. With the Corps' environmental program being one of the largest in the federal government, we have a huge responsibility to the nation," he



Dr. Edwin Theriot

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More stories available online

Internet exclusive stories for this issue are: Results of swab tests in San Francisco Bay show no oil; Ultra-low energy homes create new benchmarks for Army housing; Spring Valley cleanup keeps Corps team busy; Cape Wind Associates submits revised permit application to Corps for wind turbine proposal; Corps

of Engineers closes Web page on its draft EIS environmental review of Cape Wind proposal; and Corps proposes plan to widen section of Aberjona River to reduce flooding in downtown Winchester.

These articles are located at [https://
ekopowered.usace.army.mil/ecop/
corps_environment/](https://ekopowered.usace.army.mil/ecop/corps_environment/).

Course brings awareness of Native culture

Attendees learn about history, culture, law, communication during three-day class

By Curt Biberdorf
Alaska District

A mix of presentations from professional trainers, small group exercises and simple advice were all part of the Alaska Native Cultural Communication Course conducted in Anchorage Jan. 29-31.

The course is designed to help Department of Defense (DoD) military members and civilian employees better understand and implement the DoD's American Indian and Alaska Native Policy. Specialists in Native Alaska law, history, culture and communication teach the three-day course, as well as DoD lawyers who partner with Native governments to shape DoD American Indian and Alaska Native Policy.

Since 1996, nearly 1,000 people have taken the course, according to David Sanborn, course facilitator, DoD senior tribal liaison, Office of the Secretary of Defense, Installations and Environment. He said the course started after the government discovered that getting a background on Native Americans and Native Alaskans was essential before discussing meaningful consultation techniques and concepts.

Native Alaskans stand out from the rest of the U.S. Native American population for several reasons. Of the 562 federally-recognized tribes in the U.S., 229 are in Alaska. The three groups of Native Alaskans are Aleuts, Eskimos and Indians. They make up 16 percent of Alaska's population, have 11 distinct cultures and 19 different

languages.

Native Alaskans are the largest group of people in the country that lives in the same area by subsistence for cultural preference and necessity, said David Case, an attorney and course trainer. During his session, the class became familiar with the 1971 Alaska Native Settlement Claims Act (ANSCA). The law is what made Alaska Natives different from the rest of the nation because it formed Native corporations and left tribes without reservations except for one.

Much of the military's interaction with the Native population deals with

cleanup of formerly used defense sites and currently used sites.

"We saw Alaska as a very big place and that it could take anything we would deal out," said Lt. Gen. Douglas Fraser, commander of the Alaskan Command. "What I've found as I've worked through and had dealings with various Native villages is the best thing we can do is work on a transparent basis. We have nothing to hide."

Pat Roth routinely works with Native Alaskans as manager of Native American Environmental Mitigation

See Native page 14

Tribes offer sustainability training

A unique U.S. Army Corps of Engineers program that builds upon the sustainability ethic and the Corps Environmental Operating Principles is the Native American Environmental/Cultural Resource Training course.

This course, first developed in 2002, has four goals: (1) to develop a better understanding of indigenous cultural, spiritual and environmental beliefs, (2) to share the knowledge and experience of sustainable living, (3) to develop the principles and values necessary to evaluate federal agency actions concerning sustainability and environmental concerns, and (4) to find synergy in the sharing of ideas among federal agencies in the protection and preservation of the land and natural environment.

In a Jan. 28 memorandum, Chief of Engineers Lt. Gen. Robert L. Van Antwerp called the course "an excellent opportunity to learn cultural sensitivity, communication, flexibility, and team-building skills." During the weeklong immersion course, conducted by the

indigenous tribes, participants live with one of six tribal partners.

Courses are being offered through October. Information on how to sign up for them is available at <http://www.sad/usace.army.mil/NA/NA%20Training.htm>.

The Lakota Sioux is sponsoring a course April 29-May 2 in South Dakota; the Umatilla Tribe is offering a course in Oregon May 13-16; the Ojibway Tribe is sponsoring the June 2-6 course in Minnesota; the July 7-11 course is sponsored by the Penobscot Tribe in Maine; and the Nez Perce sponsors the Aug. 4-8 course in Idaho. The Lakota Sioux and the Umatilla Tribe are sponsoring courses in September and October, respectively, with firm dates still to be determined. A sixth tribe, The Seminole Tribe in Florida, offered its course in March.

More information about the course, as well as a link to a video about the course, can be found at <http://www.usace.army.mil/cw/tribal/index.html>.

Officials mark completion of Wolf Lake ecosystem restoration project

By Vanessa Villarreal
Chicago District

Officials from the city of Hammond and the U.S. Army Corps of Engineers joined Rep. Peter Visclosky at a ribbon-cutting event to mark the completion of the Wolf Lake Restoration Project on Sept. 14 at Wolf Lake's Forsythe Park in Hammond, Ind.

Wolf Lake is located on the northwest edge of Hammond, Ind., and the far southeast edge of Chicago. The lake covers more than 450 acres in Indiana and has a maximum depth of 18 feet. The ecosystem degradation problem in Wolf Lake included proliferation of exotic plant species, low diversity of plant and fish species, lack of adequate water depths, poor aquatic habitat, negative impacts from contaminants and shoreline erosion.

The purpose of the \$7.3 million project was to correct erosion problems, restore native plant species, improve fish habitat and manage public access through the project area. Restoration will improve water quality and enhance habitat

for aquatic and terrestrial resources. The project included enhancing and creating approximately 90 acres of aquatic and wetland habitat, restoring approximately 15,000 linear feet of shoreline, creating deep holes to locally diversify the lake bottom, controlling undesirable plants, clearing channels, and creating openings in dikes and causeways to improve water flow.

"It's amazing to see how quickly some of the restoration initiatives generate results," said District Engineer Col. Jack Drolet. "Within a few months, sponges that had not been seen in over a century were being discovered again in the lake."

As a long-time advocate for local environmental issues, Visclosky was able to secure \$4.8 million in federal funds for the restoration of Wolf Lake. He said that this lake restoration project fits into the spirit of the Marquette Plan, which is a strategy to invest in the South Shore of Lake Michigan in an effort to improve economic and recreational opportunities throughout the area.



Col. Jack Drolet and Hammond Mayor Thomas McDermott Jr. look on as Rep. Peter Visclosky commends the Corps, City of Hammond and other local stakeholders for the completion of the Wolf Lake project. (Photos by Vanessa Villarreal)



After the ribbon-cutting event, from left, Col. Jack Drolet, Hammond Mayor Thomas McDermott Jr. and Rep. Peter Visclosky pause for a talk along the Wolf Lake restoration project.

Native species help land managers rehabilitate land

By Ryan Busby
Engineer Research and Development
Center

To address military land management objectives, the Corps of Engineers has issued a new Public Works Technical Bulletin (PWTB) that provides an overview of native plants that have both remediation potential and land rehabilitation value.

These species can allow land managers to passively address soil contamination by selecting species that not only fit land rehabilitation objectives, but have proven abilities to reduce the offsite migration of soil

contaminants commonly found on training lands.

Species can be selected by contaminant, vegetation type and geographical region. PWTB 200-1-53, "Overview of Native Species with Remediation Potential That Have Applicability to Land Rehabilitation Objectives," is available on the TECHINFO Web site, <http://www.hnd.usace.army.mil/techinfo/CPW/pwtb.htm>.

Military training and testing create unique problems for sustainable land management, such as causing disturbances that affect the functioning of training ecosystems, which can result in contamination of the environment.

Many sources of contamination are very small and do not result in adverse effects. However, due to the size of military installations and training activities, the cumulative impact of multiple contaminant locations can be a potential source of problems if the contaminants are carried in runoff or leaching and end up concentrated in water that moves off site.

The most important aspect of managing soil contamination is to first keep it from entering surface and ground water supplies, and then focus

on remediating the contamination.

Because many of these small disturbances occur in areas where physical disturbance requires land rehabilitation, the opportunity exists to remedy contaminated areas without adding costs or manpower requirements.

Land rehabilitation can include selection of plant species with proven contaminant remediation properties to complement already existing range seed mixes. This not only provides desirable vegetative cover for soil stabilization and wildlife habitat, but also provides a means to passively reduce the availability of soil contaminants that might exist in these locations as well.

PWTB 200-1-53 provides an overview of such plant species. These plants have been shown in scientific literature to have qualities favorable for reducing the availability of specific soil contaminants, either through degradation or stabilization.

Species with these traits were reduced to include only those species native to the continental U.S. with wide geographic ranges, broad growth requirements, commercial availability and potential for success when used in land rehabilitation plantings.



Stand of indiangrass (*Sorghastrum nutans*). (Photo courtesy U.S. Army Corps of Engineers)

Repository, new technical bulletin put focus on range siting

By Heidi Howard and Niels Svendsen
Engineer Research and Development Center

The U.S. Army Corps of Engineers has issued a new Public Works Technical Bulletin (PWTB) that provides an overview on how range design and the environment can influence the siting of range features on military installations.

This PWTB was prepared to address elements commonly found on training ranges that have high potential for environmental degradation in addition to providing checklists to promote avoidance of many common compliance-related pitfalls associated with sustained use of range design elements. Multiple

resources have been identified that provide assistance (e.g., regulations, erosion control and construction site best management practices). Also, an AutoCADD® repository of unique range designs is provided in a navigable Web page that provides a lessons-learned unique forum for people involved in range design, planning and siting found at <http://www.cecer.army.mil/CAD%20Repository/cadindex.html>. PWTB 200-3-49, "Range Repository and Guidance for Planning and Siting: Environmental Considerations for Military Installations" is available on the TECHINFO Web site, http://www.wbdg.org/ccb/browse_cat.php?o=31&c=215 or http://www.wbdg.org/ccb/ARMYCOE/PWTB/pwtb_200_3_49.pdf.

ESPC: Raising standards, lowering costs

By Justin Ward
Europe District

Energy Savings Performance Contracts allow for risk-free cost and energy savings, low up-front costs and easy implementation at any military installation in Europe. Do you know enough about them?

Here's the challenge. The Energy Policy Act of 2005 requires all federal facilities — including all military bases in Europe — to cut energy consumption 20 percent from 2003 usage by 2015.

Here's the problem. Energy prices are increasing. In fact, so are the energy consumption levels of federal facilities, making energy one of the largest (and growing) operational expenses, especially considering that budgets at most facilities haven't kept pace with rising costs. To make matters worse, these increasing financial constraints often cause facilities to cut back on new infrastructure — such as heating and ventilation systems — which usually means decreased efficiency and increased energy expenses.

But through a tool called the Energy Savings Performance Contracts (ESPCs) — offered through the U.S. Army Corps of Engineers — federal facilities can save energy and money at the same time.

"It's called a performance contract," said James "Dusty" Stehr, the U.S. Army Corps of Engineers ESPC manager for Europe District. "It's much different than the other contracts we do; but it's a really great tool."

Here's how it works. Federal facilities in Europe can sign an agreement with one of three chosen Energy Services Companies (ESCOs) that will swap energy-efficient infrastructure for an agreed-upon monthly amount of guaranteed cost savings. Any additional cost savings resulting from the new infrastructure can be added to the installation's bankroll, free of charge.

"It's a really smart way to do business," said Hunter Dandridge, the District's previous contract manager. "It's like a mortgage. But you pay it off with your savings." Other than a small supervision and administrative cost, all initial costs for the new infrastructure are funded by the ESCO. This could include upgrading the existing heating, ventilation, electricity or water systems using renewable

energy technology, installing better insulated windows and doors or a combination.

"Sometimes an automatic thermostat could mean big savings," Stehr said. "Or sometimes you have to gut the whole thing. It just depends on the age of the building, what's currently there and how efficient it is."

The ESPC program, managed in Europe by Installation Management Command-Europe (IMCOM-E), has been helping federal facilities finance prohibitively expensive large-

scale energy savings projects for more than 10 years.

According to David Yacoub, IMCOM-E's ESPC manager, the program's strength lies in its ability to use private investment for public gain.

"The president has encouraged federal agencies to use the program extensively to achieve mandated energy and water reduction goals," Yacoub said. "Garrisons decide what they want to implement, provided that the measure generates savings. The only criteria to qualify for an ESPC project is that the project generate savings to amortize within the life expectancy of the system."

Most contracts, Stehr said, last five years with optional three-year and then two-year extensions. "We're actually developing a new contract now that will allow for more competitive bidding. So it'll be a little different in the future."

Expectations for the program, implemented through the U.S. Environmental Protection Agency, are that each facility undergoing a comprehensive upgrade financed through an ESPC achieves a greater than 50 percent reduction from current energy consumption levels.

Maintenance on the new infrastructure is normally conducted by the ESCO, Yacoub said, but could instead be done by each facility's Directorate of Public Works to cut costs even further.

Currently, the largest executed contract is at the U.S. Army Garrison-Vicenza, where ESCO Siemens AG is installing a new boiler plant, which includes a cogeneration unit that will simultaneously produce heat and power by using the escaping "waste heat" from electricity production to produce steam that could help heat the installation.

"The ESPC is absolutely a win-win," Stehr said. "In fact, every organization involved wins."

"It's a really smart way to do business. It's like a mortgage. But you pay it off with your savings."

— Hunter Dandridge

Earth Day

Corps: Environmental restoration is possible

By JoAnne Castagna, Ed.D.
New York District

Eighth grader Ebony Howard of Elizabeth, N.J., stands on a pier and carefully lifts a starfish from a water-filled glass aquarium as her giggling classmates surround her. She shrieks as one of its arms breaks off.

A U.S. Army Corps of Engineers biologist quickly assures her that it will grow back, and regenerate, and that it will be okay.

The students were taking part in the fourth annual Earth Day Celebration sponsored by the Corps and other agencies, held on the Elizabeth Marina City Dock, in April 2007.

Howard and several other students learned what can also be restored is the nearby Hudson-Raritan Estuary, the starfish's home — by keeping it pollution free.

It was on a sunny, breezy day, when more than 200 New Jersey high school students gathered on the dock which overlooks the estuary.

Corps experts told the students that an estuary is a semi-enclosed coastal body of water with one or more rivers or streams flowing into it, and with a free connection to the open sea.

Students were taught by various Earth Day volunteers about the effects of pollution on their environment. The students were educated through a variety of interactive educational stations manned by scientific and educational experts. Featured were glass water-filled touch tanks containing estuary marine life and interactive pollution and water quality testing demonstrations. The students also boarded a U.S. Coast Guard vessel for a tour and boarded the Corps' vessel

Hocking as it traveled near the estuary.

Aboard the Hocking, Corps experts discussed the estuary's rich history, current condition and the Corps' ongoing port activities and environmental restoration projects ongoing in the estuary.

The estuary is 16,212 square miles and is one of the most populated with 20 million people residing in the region. It surrounds the Port of New York and New Jersey. For more than 200 years, the New York District has managed the port's navigation, development and maintenance.

Over the decades, the salt marshes along the shores of navigation channels have experienced some degradation and habitat loss due to a number of factors including years of commercial construction and development along the shore and increased boat traffic.

The Corps' environmental restoration program is helping to bring these areas back to life.

Maintaining the health of the estuary is important because salt marshes clean the water environment, reduce flood risks and provide essential fish and wildlife habitats. Salt Marshes are areas of land that are either covered by shallow water or containing waterlogged soil.

In 2006, the New York District in cooperation with the Port Authority of New York and New Jersey and state and local agencies successfully completed four salt marsh restoration projects in the estuary that are preserving and restoring more than 143 acres of salt marsh.



Eighth grader Ebony Howard learns about starfish that live in the Hudson-Raritan Estuary from Ronald Pinzon, project biologist, New York District, U.S. Army Corps of Engineers. (Photo by JoAnne Castagna)

Salt Marsh Successes

Elders Island, Jamaica Bay, N.Y.

Located in the boroughs of Brooklyn and Queens is the Jamaica Bay Gateway National Recreation Area, a popular park visited by millions each year and home to a variety of wildlife species, including migratory birds and fish nurseries.

Since colonial times, 90 percent of the Jamaica Bay marsh islands have degraded and the remaining acres of islands are disappearing at a rate of 44 acres per year, faster in the last decade. If the islands are not restored, they will be completely lost within the next three decades.

The Corps is successfully restoring these islands — one of them being Elders Point Island. The island is comprised of two separate islands that are connected by mudflats — Elders East and Elders West — that totaled approximately 21 vegetated acres prior to the Corps' restoration.

The restoration plan for Elders

Point Island includes re-contouring the land using dredged sand from various harbor channels and restoring the existing vegetation.

In the summer of 2006, 250,000 cubic yards of sand were pumped onto Elders East and 700,000 plants were hand planted including saltmarsh cordgrass, salt hay and spike grass.

Today, marsh grass is flourishing on Elders East, and wildlife is returning.

The tentative schedule for Elders West is to place sand on the island this year and plant vegetation in 2009.

Keyspan, Staten Island, N.Y.

One of the first salt marsh areas identified for restoration was nine acres of marsh adjacent to the Keyspan Corporation Facility in Staten Island, N.Y.

In recent years, areas of the site have been overrun by an invasive species of common reed called *Phragmites australis*. "This reed is a problem because its roots can grow very thick and high preventing tide water from penetrating the area frequently," said Kerry Anne Donohue, project engineer, New York District. "Without a frequent tide, fish, shellfish and other food sources for birds and mammals cannot exist."

The Corps removed the reed and 36,200 cubic yards of soil, graded the land to elevations suitable for native plants and planted a diverse group of 107,000 native plants including saltmarsh cordgrass, salt hay and marine shrubs.

The plants are providing a food source for fish and other marine life in the estuary and also are providing vegetation for nesting birds. Water

flow to the area has been re-established, improving the water and soil quality and promoting the return of native fish and wildlife.

Joseph P. Medwick Park, Rahway, N.J.

The Corps decided to restore approximately 14 acres of salt marsh, located in the northern portion of Joseph P. Medwick Park along the southern shore of the Rahway River.

Years ago, a berm was built on the banks of the Raritan River, cutting off the site from the daily tide. As a result



Workers planting native wetland plants on the Joseph P. Medwick restoration site in Rahway, N.J.
(U.S. Army Corps of Engineers)

the area was overrun by an invasive species of common reed called *Phragmites australis* that prefers the drier conditions. The reed prevented a normal tide of water from flowing into the site which has degraded the site and adversely affected its fish nurseries and the bird and wildlife habitats.

The Corps removed the reed and about 30,000 cubic yards of soil, re-contoured the land and planted 270,000 plugs of native wetland plants including saltmarsh cordgrass, salt hay and marine shrubs.

The plants are providing a food



Sunset on Elders East, Jamaica Bay. (U.S. Army Corps of Engineers)

source for fish and other marine life in the estuary and vegetation for nesting birds. Water flow to the area has been re-established, improving the water and soil quality and promoting the return of native fish and wildlife.

Woodbridge Creek Project, Woodbridge, N.J.

Woodbridge Creek is a salt marsh with a diversity of vegetation and wildlife. In recent years, areas of the site have been overrun by an invasive species of common reed called *Phragmites australis*. The reed prevented a normal tide of water from flowing into the site which has adversely affected its fish nurseries and the bird and wildlife habitats.

The Corps restored about 23 acres of the marsh. Another eight acres adjacent to the site were restored in cooperation with the National Oceanic and Atmospheric Administration and the New Jersey Department of Environmental Protection.

The restoration included removing soil from within the marsh, grading the land elevations making it suitable for native marsh vegetation to flourish and replanting a variety of more than 240,000 marsh plants.

The plants are providing a food source for fish and other marine life in the estuary and providing vegetation for nesting birds. The project has restored the water flow to the site and as a result juvenile fish species are creating nurseries there and bird and wildlife habitats are returning to the site.

Spring Lake Islands project enhances wildlife habitat on Mississippi River

By Kurt Brownell
St. Paul District

The U.S. Army Corps of Engineers' St. Paul District, U.S. Fish and Wildlife Service and the Wisconsin and Minnesota departments of natural resources hosted a celebration for the completion of the Spring Lake Islands habitat rehabilitation and enhancement project Oct. 12.

The public celebration included a dedication ceremony, interpretive programs and displays. The new island complex is located near Buffalo City, Wis., and the event was held in conjunction with the celebration of the fall bird migration during National Wildlife Refuge Week.

The habitat project was prompted by the erosion and disappearance of natural islands in the Spring Lake area since the building of Lock and Dam 5 and the creation of Pool 5 in the 1930s. These islands had protected Spring Lake from the effects of the main river channel and had reduced wind fetch and the associated wave action. Loss of the islands resulted in less vegetation in the lake, and thus, less food for fish and wildlife.

The \$4.3 million project was completed in the fall of 2006 by L.W. Matteson Company of Burlington, Iowa. It involved constructing six islands within and along the west side of Spring Lake to restore habitat and diversity in the lake.

Four of these islands were constructed using \$3.5 million from the Environmental Management Program (EMP). Materials for these islands were hydraulically dredged from 15 acres within the lake and pumped to form the islands. Rock was used to stabilize both the new and existing islands. The dredging also created deeper water to create better fish habitat and to facilitate boat access through the area.

The other two islands were constructed with materials dredged from the navigation channel and \$800,000 in channel maintenance funding. This allowed the district a way to beneficially use these materials to improve habitat. The district was further able to avoid the cost of double handling these materials, which would be the case if they were first placed in a temporary placement site and later moved to a site outside of the floodplain for permanent storage or reuse later.

The design and placement of these islands will be



Five islands in the Mississippi River project area now have names, thanks to a "Name the Island" contest. Pelican Island: submitted by Scott Mehus, Buffalo City, Wis.; Robin Grawe, Winona, Minn.; Joni MacLeod, Fountain City, Wis.; Margaret and Mac McCauley, Winona; and Margaret Kiihne, Winona. Deer Toe Island: submitted by Scott Mehus, Buffalo City, Wis. Water Snake Island: submitted by Brian Pember, Winona, Minn. Deep Hole Island: submitted by Emmett Keller, Chippewa Falls, Wis. Bulrush Island: submitted by Sharon Grawe, Northfield, Minn. Snipe Island: submitted by Ron Burfield, Houston, Minn. *(Courtesy photo)*

evaluated in upcoming years; and if they prove to be effective at enhancing habitat in the Spring Lake area, more islands may be built in the future using dredged material.

To reduce the amount of rock stabilization and associated costs, native prairie grasses and willow switches were planted to initially stabilize the islands. Shrubs and trees will be planted in 2008 to further stabilize the islands and to provide additional habitat benefits.

The 32 acres of islands also will improve the growth of aquatic vegetation and enhance habitat diversity. The project will ultimately protect about 500 acres of valuable backwater fish and wildlife habitat.

The dedication ceremony included remarks from representatives of the Corps, the Fish and Wildlife Service, the Wisconsin Department of Natural Resources, the mayor of Buffalo City and U.S. Representative Ron Kind's office.

"The event appeared to be an enjoyable experience for those that attended," said Don Powell, St. Paul District EMP project manager. "We received many words of appreciation for the ongoing habitat restoration efforts on the Upper Mississippi River."

Tool puts focus on community visions

By James Waddell, *South Atlantic Division*; Susan James, *Portland District*, and Nancy M. Porter, *HQ USACE*

A joint U.S. Army Corps of Engineers and Environmental Protection Agency (EPA) tool is helping to capture and integrate individual and community visions of how sustainable communities should look.

Vision to Action/Multi-Vision Integration involves an innovative interview and visualizing technique using art produced by individuals and supported by impartial professional artists and facilitators. The Vision to Action tool, which encourages sustainable development, is used at open community forums. Participants are encouraged to first listen, obtain diverse individual visions and assessments, whatever they might be, and then seek to integrate the individual visions into a regional or community vision.

Two Corps "Visioneers", James Waddell of South Atlantic Division and Susan James of Northwest Division, recently facilitated Vision to Action workshops with the two cities

in Alabama, Selma and Valley.

Situated on the Alabama River, Selma was founded in 1820, and boasts the largest historic district in Alabama with more than 1,200 structures, many dating back to the 1800s.

Selma's residents and officials participated in a Vision to Action workshop on Feb. 12 and 13 with Waddell and James. The visioning session revealed a rich and diverse set of economic, ecological and social benefits between the riverfront on the Alabama River and the connectivity between Selma and the communities up and down stream. Fresh ideas emerged on how the riverfront can be developed and how the interconnectivity can create a system of interdependence of the communities along the river.

Selma Mayor James Perkins sent a letter thanking the "visioneers" for their superb support in energizing the community to develop a vision for their historic district, riverfront and former military base.

"I am excited about the technical expertise and visioning support that you brought to the City of Selma and

would like to extend an invitation for you to return to Selma to do a more extensive Community Visioning workshop in the near future," Perkins wrote.

The Multi-Vision Integration of the art produced by the community, elected and local government officials provided Perkins with overall themes, ambitions, ideas and ultimately a consensus that will lead to commitments and actions for the community.

Although Valley is a mere 25 years old, its history dates back to the late 1860s when twin textile mills and towns, Langdale and Riverview, were built on the banks of the Chattahoochee River. In the early 1900s, two additional mills and mill villages, Shawmut and Fairfax, were built. The city of Valley was born in 1980 when the four mill towns incorporated.

On Feb. 18-20, Valley community members sketched their ideas for the sustainable redevelopment of two mill properties, Langdale and Riverview. Both mills are listed on the National

See Vision to Action page 14



Participants at the Selma community Vision to Action workshop show a Multi Vision Integration they created for a more sustainable Selma. (Courtesy photo)

District evaluates environmental conditions

Studies identify environmental liabilities, advise Army of estimated disposal expenses

By Todd Hornback
Louisville District

At the request of the Base Realignment and Closure Division, referred to as BRACD, the Louisville District coordinated the nationwide execution of 156 Phase I Environmental Condition of Property studies, known as ECPs, in support of the U.S. Army Reserve BRAC 05 program. In addition, Phase I ECPs also were completed for nine major installations throughout the continental U.S.

“The ECP study determines the environmental condition of properties for disposal and provides a snapshot of the current environmental condition,” said Chris Inlow, Louisville District project manager.

The ECPs document past and present environmental liabilities and advise the Army of estimated expenses associated with disposing of the property. The project delivery team gathered existing environmental documentation for each property and visited each site to identify other liabilities, such as underground storage tanks. Each ECP includes additional reviews of chemical hazards, pesticides, radioactive materials, radon and chemical weapons and munitions impacts.

Phase I work included Historical Record Review and data gathering, interviews, aerial photography analysis, environmental database searches and visual site inspections. The process included a team of 25 members plus five



Contractors conduct field sampling activities at Fort Monroe, Va. This sampling is representative of just one of the many forms of sampling conducted as part of the Environmental Condition of Property program across the nation. (U.S. Army Corps of Engineers)

technical reviewers in Louisville District to oversee the task orders. The ECP reports were reviewed by U.S. Army Reserve Command, BRACD, Army Environmental Command (AEC), U.S. Army Technical Center for Explosive Safety (USATCES) and several Corps offices. Fort Worth, Kansas City, Norfolk, Sacramento and Seattle Corps districts provided technical support.

According to Inlow, open communication had a positive effect on project quality assurance reviews with the Army Installation Management Command, Environmental Law Division, AEC, USATCES and BRACD.

“Agendas often differed from agency to agency, so the team followed the Project Management Plan closely to ensure everyone was on the same page and contractors knew what the customer wanted,” Inlow said.

The 19-page plan with additional appendices identified the stakeholders and provided contact information to ease communication amongst the agencies. The constant and open communication became the basis for the project success.

Through constant open communications via teleconferences, video teleconferences and on-site meetings, the agencies overcame all obstacles under the PDT’s leadership. The team also used Web sites to update project status notifying stakeholders through e-mail.

“The team worked to better execute to make the process easier for our military stakeholders,” Inlow said. “The team gained experience to help in the future from lessons learned and to pass that knowledge on to other employees to continue excellent service to our military and nation.”



A contractor collects geophysical data during Environmental Condition of Property work at the Mississippi Army Ammunition Plant. (U.S. Army Corps of Engineers)

OSHA specific on 8-hour HAZWOPER refresher training

By Mark J. Fisher
*Environmental and Munitions
Center of Expertise*

The Occupational Safety and Health Administration's (OSHA's) Hazardous Waste Operations and Emergency Response (HAZWOPER) standard was written to protect workers in three uniquely different industries: cleanup operations, operation of treatment, storage and disposal facilities, and emergency response operations. Not surprisingly, OSHA expects annual refresher training to reflect the safety and health hazards unique to each industry.

The work the U.S. Army Corps of Engineers (USACE) performs for the Installation Restoration Program (IRP), Formerly Used Defense Sites (FUDS), Environmental Protection Agency (EPA) Superfund and Formerly Utilized Sites Remedial Action Program (FUSRAP) is considered cleanup work and as such, eight-hour annual refresher training for USACE personnel working in these programs should follow the refresher training requirements specified in paragraph (e) of the HAZWOPER standard. USACE organizations should also be careful not to confuse paragraph (e) requirements with emergency response refresher training requirements specified in paragraph (q) of the standard.

A well designed eight-hour refresher course for cleanup operations, whether presented by an instructor in a traditional classroom setting or offered through an online service, will cover the technical requirements from paragraph (e) (8) of the HAZWOPER standard (29 CFR 1910.120/29 CFR 1926.65) and allow sufficient student interaction with knowledgeable safety and occupational health professionals. Technical requirements for cleanup operations refresher training include the following:

1. Evaluation of safety and occupational health incidents at cleanup projects from the past. Primarily from the previous year but incidents from the more distant past are acceptable.
2. Identification of USACE staff with direct responsibility for developing and implementing safety and occupational procedures for working on cleanup projects.
3. Safety and occupational health hazards typical of USACE cleanup operation.
4. Use of personal protective equipment on cleanup projects.
5. USACE work practices and procedures that minimize risk from safety and health hazards on cleanup projects.
6. Use of engineering controls and equipment to minimize exposure to

safety and health hazards at cleanup projects.

7. Medical surveillance requirements for cleanup operations including signs and symptoms of exposure to typical contamination.
8. Decontamination procedures typical of USACE cleanup operations.
9. Emergency response planning procedures and technical requirements typical of USACE cleanup operations.
10. Confined space recognition and entry procedures.
11. Spill containment procedures for handling liquids and solids from drums and containers.

Refresher training requirements covered by OSHA's HAZWOPER standard are industry specific and as a result, refresher training courses are not created equally. Refresher training courses for USACE organizations with environmental cleanup missions should comply with refresher training requirements for cleanup operations, should provide information relevant to the safety and health of staff performing the cleanup mission and should not be interchanged with refresher training courses intended for treatment storage and disposal operators or emergency responders.

Point of contact at the EM-CX for hazardous waste site cleanup safety and health requirements is Mark Fisher at 402-697-2587.

Theriot

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said.

"We have to better organize our capabilities in the field to focus on better executing for our customers. Our programs are diffused right now and need to be managed corporately to sustain both our capabilities and provide the services the nation expects us to provide."

Theriot said he believes "sustainability is key to all the Corps' projects. The Environmental Operating Principles were our first effort to look at the procedures and processes we need to take to achieve sustainability. We have to balance environment with economics and social needs for

the long-term sustainable solutions.

"The Environmental Operating Principles are more relevant now than ever," he said. "What we have to do now is to provide guidance corporately that translates into actionable items as we go through the lifecycles of our projects. Achieving sustainability is ultimately the best solution.

"The Corps has the responsibility to take care of the environment in all we do, and the new director will be challenged to bring all the components together," Theriot said. "That's what the nation expects us to do, and we are poised to do exactly that."

Native

Continued from page 4

Program for the U.S. Army Corps of Engineers-Alaska District. Another



Coast Guard Capt. Steve Hudson, chief of prevention for the 17th Coast Guard District in Juneau, Alaska, writes the pros and cons of the Alaska Native Settlement Claims Act in a small group exercise during the Alaska Native Cultural Communication Course in Anchorage Jan. 29-31. (Photo by Curt Biberdorf)

difference with Native Americans is that tribes are not considered racial groups by the federal government but are instead political groups.

When you're going out and meeting with these governments, it's as different as working with another country, Roth said. These are powerful governments. We need to respect their rights.

Course topics covered the historical relationship between the U.S. government and Alaska Natives and how that history may affect DoD today. It summarized the laws and policies requiring consultation with Alaska Natives and American Indians and the legal basis for the DoD policy. It also introduced Alaska Native cultures and concepts, and intercultural communication.

"I wish more tribal officials could

attend, but the information provided was very profound," said Arnecia

Bradley, civil engineer in the Site Development Branch at the U.S. Army Engineering and Support Center, Huntsville, Ala., and among the 47 people registered for the course.

Participants also gained practical tips, such as the importance of relationship building, being flexible and

researching the village before visiting. It's important to pack and bring a carry-on in case of lost baggage and to never refuse a gift. The "bigwigs" also better be prepared to dance at community events.

"The positive consultation experience really is protecting natural and cultural resources, environment, and health and safety of the population," Sanborn said.



David Sanborn

Vision to Action

Continued from page 11

Register of Historic Places.

Working with Waddell and James, community members "visioned" a vibrant community center integrating their water resources, the Chattahoochee and the Langdale and River View dams, and the adaptive reuse of the mills into shops, condos and restaurants. Mayor Arnold Leak's vision included a walkable river trail extending across three islands and reusing iron truss bridges available through the Alabama Department of Transportation. Although the bridges are no longer suitable for highway travel, they are very safe for foot travel and have become an integral part of Leak's vision.

Valley officials developed a proposal from the integrated visions and presented the proposal to the Governor of Alabama. Currently Architect-Engineer firms are developing detailed plans based on the visioning outputs.

Integrating water resources into community visioning is a common and connecting theme throughout Vision to Action workshops, which draw upon the sustainability ethic espoused in the Corps Environmental Operating Principles.

Vision to Action/Multi-Vision Integration is a collaborative effort between the U.S. Army Corps of Engineers South Atlantic Division and EPA Region 4, with

EPA having provided the funding to develop the tool. The Corps and EPA debuted Vision to Action/Multi-Vision Integration at the 2003 Brownfields Conference in Portland, Ore. Since then Vision to Action has become a regular hands-on exhibit at the Brownfields national conferences.

During the past two years, 13 communities have participated in Vision to Action workshops. Communities located along a river reach are good candidates to demonstrate the Multi-Vision aspects, benefits in a water basin and the interconnectivity of communities located in the water basin.

Vision to Action/Multi-Vision Integration workshops facilitate information sharing and briefings from various state, federal and local agencies leading to a cohesive community vision and revitalization. These sessions create a potential for partnerships and positive image enhancement of the Corps through waterway-related projects.

Additional information can be found at: <http://www.epa.gov/ciconference/previous/2007/myvision.htm> or by viewing a video and PowerPoint presentation at: https://ekopowered.usace.army.mil/ecop/tools_info/. To schedule a Vision to Action workshop, contact Jim Waddell, South Atlantic Division, at 404-562-5270.

Awards

Army Corps achieves huge storm cleanup

By Elizabeth McGowan
Waste News

Marilyn Pazisley could barely put her gratitude into words in early 2006 when she met Dale Winfield in a Dollar General Store parking lot near New Orleans.

After Hurricane Katrina ruined her Plaquemines Parish home when it ripped into Louisiana in late August 2005, the 60-something widow figured she had lost everything she left behind upon fleeing her neighborhood. But Winfield's crew, cleanup contractors hired by the U.S. Army Corps of Engineers, had unearthed a memento she'd inquired about.

They arranged to meet so Winfield could hand her the folded flag that had been draped on the casket of her husband, a Vietnam veteran, at his funeral. One of his workers had discovered the treasured item amidst the rubble in Pazisley's house.

Hundreds of such remarkable recovery stories played out during a \$3 billion two-year cleanup mission executed by the Army Corps after Hurricanes Katrina and Rita tore through Louisiana. The portion administered by the Federal Emergency Management Agency wrapped up in late September.

Incredibly, the 28.3 million cubic yards of debris that was recycled and trashed is enough to fill the Superdome at least seven times.

Check out some of these numbers: almost 7,100 buildings demolished (of more than 12,000 eligible structures), 71,000 private properties cleaned up, 259,000 tires recycled, more than

58,300 trees mulched and more than 5.5 million hazardous household items disposed of or recycled. The latter consisted of everything from hairspray to propane bottles to drums of chemicals.

This stellar effort has earned the Army Corps this year's Waste News

Corps wins environmental award

Waste News, a leading news source about waste and environmental management, named the U.S. Army Corps of Engineers the recipient of the 2007 Environmental Award Government category for its two-year cleanup of the destruction caused by hurricanes Katrina and Rita.

"The \$3 billion project involved collecting enough debris to fill the Superdome five or six times. The massive and unprecedented project was a huge logistical and emotional challenge for the government entity to spearhead," said *Waste News* editor Allan Gerlat.

Waste News Publisher, V.P. and Publications Director, Robert S. Simmons said, "The Army Corps of Engineers is influencing positive environmental change and through their initiatives they demonstrate how green business practices can make a difference."

Environment Award in the government category.

The mess Katrina and Rita left behind was unprecedented in the country's history — more enormous than destruction caused by Hurricane Andrew and the attacks on the Twin Towers of the World Trade Center.

Separately, Army Corps action in Mississippi finished up last year. About 23 million cubic yards of material were picked up in Mississippi under the Corps' guidance.

"The Corps of Engineers proved to be a great asset and partner," said Jim Stark, who directed FEMA's Louisiana Transitional Recovery Office. "We greatly appreciate their cooperation and dedication. Without their help, we never would have gotten this far in removing debris and demolishing structures."

Three days after Katrina roared in, Army Corps employee Jim Pogue traveled from his Memphis headquarters to set up the public affairs portion of the Louisiana Recovery Field Office on a barracks barge along the Mississippi River near Baton Rouge.

"Normally, our disaster response is six to eight weeks, and you're on your way home," Pogue said. "But when we got there we all knew this was bad. Soon, we wondered: Is this ever going to end?"

Early on, the Army Corps disposed of 50 million pounds of rotting meat and seafood under grueling circumstances. Pogue can still conjure up the hellacious stink emanating from thousands of abandoned refrigerators and freezers as workers clad in hazardous materials suits and respirators toiled under a searing sun.

"I saw our people shed more than a few tears," Pogue said about seeing his cohorts reconnect hurricane survivors such as Pazisley with their cherished belongings.

Pogue, who rotated in and out of Louisiana for two years, described the hurricane wreckage as unearthly. He figured his images of never-ending trash would persist. So he was surprised by his reaction to a dump truck on a Memphis street the other day.

"That's the first time I've been able to look at a big dump truck and not think of New Orleans," he explained. "There, it was just truck after truck after truck loaded to the gills with debris."

Editor's note: This article is used with permission.

Cleanup continues at former Camp Sibert

By Debra Valine

U.S. Army Engineering and Support Center, Huntsville

Looking out over Site 8 at the former Camp Sibert near Gadsden, Ala., all you see is a peaceful field with a couple of houses, barns, fencing and cattle. It's hard to believe that the area was used by the military for chemical munitions training from 1942-1945.

For the past two years, U.S. Army Corps of Engineers experts from Mobile District and the Engineering and Support Center in Huntsville, Ala., have been working with Edgewood Chemical Biological Center and 20th Support Command teams from Aberdeen Proving Ground, Md., and contractor partner Parsons to identify some 10,000 anomalies for removal from Site 8.

Of the 11,420 items removed, only 22 items have been mortars, of which only eight contain unknown liquid fill.

Work at Site 8 is expected to continue through calendar year 2008.

"We continue to educate the local population about what to do if they find something like this in their yards," said Sherri Anderson-Hudgins, the project manager from

Huntsville Center. "We call it the three R's: Recognize the item, Retreat from the area, and Report what they found to their local police department. Our goal is to keep everyone as safe as possible."



Parsons employees Mike Warner, left, Dave Flemming and Jim Hannon working at the former Camp Sibert near Gadsden, Ala., demonstrate proper decontamination procedures. (Photo by Debra Valine)

Ten everyday pollution solutions

1. Use cast iron pans instead of nonstick.
2. To prevent chemicals leaching into food, avoid processed, canned or fast foods and never microwave plastic.
3. Buy organic or eat vegetables and fruit from the "Cleanest 12" list. Onions are listed as the best.
4. Use iodized salt to combat chemical interference from the thyroid.
5. Seal outdoor wood structures.
6. Leave your shoes at the door. This minimizes distribution of dust-bound pollutants.
7. Avoid perfume, cologne and products with added fragrance.
8. Buy products with natural fibers, like cotton and wool, which are naturally fire resistant.
9. Eat low-mercury fish like tilapia and pollock, rather than high-mercury choices like tuna and swordfish.
10. Filter your water for drinking and cooking.

Information obtained from the Environmental Working Group's Web site: www.ewg.org. EWG is a not-for-profit environmental research organization dedicated to improving public health and protecting the environment by reducing pollution in air, water and food.

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